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SQUIRE, SANDERS & DEMPSEY L.L.P.			LAM, DUNG LE	
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TYSONS CORNER, VA 22182			2617	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/501,581	Applicant(s) HAUMONT, SERGE	
	Examiner Dung Lam	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Claim Objections

1. Claims 58, 72, 83, 91 and 102 are objected to because of the following informalities:
informalities:
2. Claims 58, 72, 83, 91 and 102 cite "M2M". The examiner suggests spelling out the acronym to either "mobile to machine" or "machine to mobile" to be consistent with the specification.
3. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 53-54, 56-57, 60, 62, 64, 66, 67-68, 70, 71, 74, 76, 78, 80, 82, 84, 86-87, 89, 90, 93, 95, 97, 99-101 and 103 are rejected under 35 U.S.C. 102(e) as being anticipated by Stephens (US Patent No. 6,393,285).

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3. Regarding **claim 53**, **Stephens** teaches (see Fig. 1 and Abstract, Col. 2 lines 4-21) a method of adjusting mobility management in a mobile communication network wherein said mobile communication network comprising:

a mobility control unit (HLR, C2 L37-62) adapted to track location of communication units communicating in said mobile communication network and to control the mobility management for said communication units,

said method comprising the steps of providing said mobility control unit with mobility information related to a communication unit, evaluating the degree of mobility of said communication unit from said mobility information related to said communication unit (C3 lines 11-20), and, when said step of evaluating indicates the immobility (low mobility or non-mobile units col. 3 Lines 55-64) of said communication unit (C3 lines 11-30),

adjusting, by said mobility control unit, values of timer elements (Col. 3, lines 56-64, Col. 4, lines 23-29) mobility control unit to a maximum timer value (the registration frequency can be reduced to zero, Col. 3, lines 56-64) or timer value being higher than a default timer value (a lower periodic registration frequency, Col. 3, lines 56-64) said mobile communication network; said timer elements defining a time period of a ready state of said communication unit and/or (It is noted that "and/or" can be interpreted as either "and" or "or". The examiner interprets "and/or" as an "or" which means it is an optional limitation) a time period for performing a location update for said communication unit (periodic registration frequency, Col. 3, lines 56-64).

4. Regarding **claim 54**, **Stephens** teaches a method according to claim 53 respectively (see claim 53). **Stephens** further teaches said communication unit includes a specific information element indicating an inherent periodic update timer value (a lower periodic registration frequency, Col. 3, lines 56-64) and/or predefined mobility management parameter

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for mobility management elements of said communication unit and/or said mobility control unit, said periodic update timer value and/or predefined mobility management parameter being detected in said evaluating step (C3 lines 11-30).

5. Regarding **claim 56**, **Stephens** teaches a method according to claim 53 (see claim 53). **Stephens** teaches, wherein said adjusting step comprises a step of setting said timer elements of said communication unit value (the registration frequency can be reduced to zero, Col. 3, lines 56-64) and/or said mobility control unit to predefined changed periodic update timer values and/or predefined changed mobility management parameters.

6. Regarding **claim 57**, **Stephens** teaches a method according to claim 53 (see claim 53). **Stephens** further teaches a step of disabling a function of the mobile communication network that is used to force a modification of an operation state of the communication unit (the registration frequency be reduced to zero which disables the registration function, Col. 3, lines 56-64).

7. Regarding **claim 60**, **Stephens** teaches a method according to claim 53 (see claim 53). **Stephens** further teaches said mobility information related to said communication unit is provided from said communication unit (Col. 2, lines 38-62).

8. Regarding **claim 62**, **Stephens** teaches a method according to claim 60 (see claim 60). **Stephens** further teaches that mobility information includes a request for setting at least one timer element to a maximum value (the registration frequency be reduced to zero, Col. 3, lines 56-64, Col. 4, lines 23-29.)

9. Regarding **claim 64**, **Stephens** teaches a method according to claim 53 (see claim 53). **Stephens** further teaches an adjusting step of the timer elements to maximum setable values (the registration frequency be reduced to zero, Col. 3, lines 56-64).

10. Regarding **claim 66**, **Stephens** teaches a method according to claim 53 (see claim 53). **Stephens** further teaches an adjusting step of the timer elements to set values which are incremented by an predetermined amount in comparison to the values set before (the registration frequency be reduced to zero, a lower periodic registration frequency inherently predetermined, Col. 3, lines 56-64).

11. Regarding **claims 67-68,70,71,74 and 80** they define a mobility control unit, which corresponds to the method claims 53, 54,56, 57, 60 and 66 respectively. Therefore, they are rejected for the same reasons as 53, 54,56, 57, 60 and 66 (see claims 53-54,56, 57, 60 and 66 above).

12. Regarding **claims 76**, they define a mobility control unit that corresponds to the method claim 62. Therefore, they are rejected for the same reasons as 62 (see claims 62).

13. Regarding **claim 78**, it defines a mobility control unit that corresponds to the method claim 64. Therefore, they are rejected for the same reasons as claim 64 (see claim 64 above).

14. Regarding **claim 81**, claim 81 defines a communication unit, which corresponds to the combined method claims of 53 and 54. Therefore, it is rejected for the same reasons as claims 53 plus 54 (see claims 53 and 54 above).

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15. Regarding **claim 82**, claim 82 defines a communication unit, which corresponds to the limitation of claim 54. Therefore, it is rejected for the same reasons as claim 54 (see claim 54 above).

16. Regarding **claim 84 and 103**, they respectively define a communication unit and a mobility management system that correspond to the method claim 62. Therefore, they are rejected for the same reasons as claim 62 (see claim 62 above).

17. Regarding **claims 86-87, 89, 90 and 93**, they define a mobility management system, which corresponds to the method claims 53, 54,56, 57, 60 and 66 respectively. Therefore, they are rejected for the same reasons as 53, 54,56, 57, 60 and 66 (see claims 53, 54,56, 57, 60 and 66 above).

18. Regarding **claim 95**, it defines a mobility management system that corresponds to the method claim 62. Therefore, they are rejected for the same reasons as 62 (see claims 62 above).

19. Regarding **claim 97**, it defines a mobility management system that corresponds to the method claim 64. Therefore, they are rejected for the same reasons as 64 (see claims 64 above).

20. Regarding **claim 99**, they define a mobility control unit, which corresponds to the method claims 66. Therefore, it is rejected for the same reasons as 66 (see 66 above).

21. Regarding **claims 100 and 101**, they define a mobility management system, which corresponds to the method claims 53 and 56 respectively. Therefore, they are rejected for the same reasons as 53 and 56 (see claims 53 and 56 above).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claim **55, 69 and 88** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Stephens** (US Patent No. 6,584,331) in view of **Croft et al.** (US Patent No. 6078826).

23. Regarding **claim 55, Stephens** teaches a method according to claim 53 (see claim 53). **Croft** teaches that mobility information related to said communication unit includes previous location information and current location information of said communication unit, said previous location information and current location information being compared in said evaluating step to determine whether they are equal (Location circuitry compares the currently accessed base station ID to see if it matches the stored base station IDs Col. 4, lines 18-24). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify **Stephens** 's teachings to facilitate the mobility determination by simply comparing the current and last associated position without having to perform any complex algorithms.

24. Regarding **claims 69 and 88** they respectively define a mobility control unit, communication unit that corresponds to the method claim 55. Therefore, they are rejected for the same reasons as claim 55 (see claim 55 above).

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25. Claims **58, 72, 83, 91 and 102** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Stephens** (US Patent No. 6,584,331) in view of **Obhan** (US Patent No. 6,275,695).

26. Regarding **claim 58**, **Stephens** teaches a method according to claim 53 (see claim 53). However, **Stephens** fails to teach that said communication unit is employed in a static device used for a M2M application. In an analogous art, **Obhan** teaches a dynamic adjustment of registration of vending machine with a communication system based on mobility (Col. 3 In 23-39, Col. 12 In 50-63). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to apply **Stephens**'s teaching of mobility management in an M2M application by employing a static device as taught by **Obhan** to reduce unnecessary location update signaling.

27. Regarding **claims 72, 83, 91 and 102**, they respectively define a mobility control unit, communication unit, and a mobile management system, which correspond to the method claim 58. Therefore, they are rejected for the same reasons as 58 (see claim 58 above).

28. Claims **59, 61, 63, 65, 73, 75, 77, 79, 85 92, 94, 96, 98 and 104** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Stephens** (US Patent No. 6,584,331) in view of **Kalliokulju** (WO 99/52306).

29. Regarding **claim 59**, **Stephens** teaches a method according to claim 53 (see claim 53). However, **Stephens** fails to teach that said mobility control unit is included in a core network control unit of the mobile communication network. In an analogous art,

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Kalliokulju teaches that the mobility management function is maintained both in the mobile device and in the core network SGSN (col. 5, lines 9 -14). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify **Stephens** 's mobility management to add a mobility control unit in the core network to facilitate and reduce signaling loads in the positioning and connection process.

30. Regarding **claim 61**, **Stephens** teaches a method according to claim 53 (see claim 53). However, **Stephens** fails to teach that said mobility information related to said communication unit is provided from a core network control unit of the mobile communication network. In an analogous art, Kalliokulju teaches that the mobility management function is maintained both in the mobile device and in the core network SGSN (col. 5, lines 9 -14). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify **Stephens** 's mobility management to also be included in the core network to facilitate and reduce signaling loads in the positioning and connection process.

31. Regarding **claim 63**, **Stephens** teaches a method according to claim 60 (see claim 60). However, **Stephens** fails to teach that the mobility information includes a request for deactivating at least one timer element. In an analogous art, Kalliokulju teaches that an MS may transmit a request for disconnection from the network, changing the connection state from ready to idle. This change of connection state means the ready timer of the ready state is deactivated and the connection is cut off freeing up space and resource. (Col 16, lines 23-36). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the

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invention to modify **Stephens** 's mobility management to have the flexibility to deactivate a timer element to move a different connection state and thus reducing unused resource.

32. Regarding **claim 65**, **Stephens** teaches a method according to claim 53 (see claim 53).

However, **Stephens** fails to teach said adjusting step the timer elements are deactivated. In an analogous art, Kalliokulju teaches that an MS may transmit a request for disconnection from the network, changing the connection state from ready to idle. This change of connection state causes an adjustment of the ready timer of the ready state to be deactivated and the connection is cut off freeing up space and resource. (Col. 16, lines 23-36). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify **Stephens** 's mobility management to handle a request to deactivate a timer element to save some unused resource.

33. Regarding claims **73, 75, 77 and 79**, they define a mobility control unit, which corresponds to the method claims 59, 61, 63 and 65 respectively. Therefore, they are rejected for the same reasons as 59, 61, 63 and 65 (see claims 59, 61, 63 and 65 above).

34. Regarding claims **85 and 104** they respectively define a communication unit and a mobility management adjustment system, which correspond to the method claim 58. Therefore, they are rejected for the same reasons as 63 (see claim 63 above).

35. Regarding claims **92, 94, 96, and 98**, they define a mobility management adjustment system, which corresponds to the method claims 59, 61, 63 and 65 respectively. Therefore,

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they are rejected for the same reasons as 59, 61, 63 and 65 (see claims 59, 61, 63 and 65 above).

Response to Arguments

Applicant's arguments with respect to claims 53-104 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL


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